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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/602,499 | 06/25/2003 | Keith Besse | SAP001.7000 | 2179 |
| 7590 | 12/19/2005 | | EXAMINER | |
| Paul J. Cook 115 Pine Street Manchester, MA 01944 | | | KOCZO JR, MICHAEL | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3746 | |

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/602,499 | BESSE ET AL. |
| | Examiner Michael Koczo, Jr. | Art Unit 3746 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-16 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 June 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.

- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: ____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

On page 4, line 9, “convention” should read --conventional--.

On page 4, line 17, “I” should read --in--.

On page 4, line 30, “96” should read --86--.

On page 5, line 6, “on” should read --and--.

Appropriate correction is required.

Drawings

The drawings are objected to because of the following reasons:

Parts in section must be hatched and parts in elevation must be shaded. See figure 2 for example.

In figure 1 the lead lines of numerals 56 and 58 do not clearly identify the seal and guide.

In figure 10 the numerals are not uniformly drawn.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 to 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 7, there is no antecedent basis for "said ceramic rotor".

Claim 2 recites "wherein said first housing and said second housing are formed of a single element". It is not clear if this is intended to be a "product-by-process" limitation and, if not, what the structural limitation of this recitation is. Therefore the scope of the claim cannot be ascertained.

In claims 5 and 6, there are plural antecedents for "said housing". Note that claim 1 recites first and second housings.

In claim 13, there is no reference frame for “self-aligning”. What features or axes of the coupling are self-aligning?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz et al in view of Makino et al. Sanz et al disclose the invention substantially as claimed (see figure 6). However, Sanz et al do not disclose that the intake/exhaust distributor formed by the rotor 532 and stator 534 is made of ceramic material. Makino et al disclose a distributor for a machine wherein the distributor is formed of ceramic material (col. 6, l. 56). Ceramic materials are known for their durability and corrosion resistance. In view of this teaching, it would have been obvious to form the rotor 532 and stator 534 of Sanz et al of ceramic material. Regarding claim 2, as understood, it has been held that “it involves no invention to cast in one piece an article which has formerly been cast in two pieces and put together” (Howard V. Detroit Stove Works, 150 U.S. 164 (1893)).

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz et al in view of Makino et al, as applied to claim 1 above, and further in view of Fletcher et al. Fletcher et al disclose a valve which is formed of aluminum oxide which is wear and corrosion

resistant. In view of this teaching, it would have been obvious to form the valve of Sanz et al, as previously modified, of aluminum oxide.

Claims 7, 8, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz et al in view of Makino et al, as applied to claim 1 above, and further in view of Strohmeier et al. Strohmeier et al disclose a pump having a piston formed of sapphire (col. 5, l. 1 and 65). Sapphire is known for its hardness and corrosion resistance. In view of this teaching, it would have been obvious to substitute a sapphire piston for the piston of Sanz et al.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz et al in view of Makino et al and Fletcher et al, as applied to claim 3 above, and further in view of Strohmeier et al, as applied previously.

Claims 13 and 16/13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz et al in view of Makino et al, as applied to claim 1 above, and further in view of Woodworth et al. Woodworth et al disclose a solenoid actuated rotary valve which is self aligning in order to prevent binding of the valve parts (col. 10, para. 2). In view of this teaching, it would have been obvious to provide the pump apparatus of Sanz et al, as previously modified, with a solenoid actuated rotary valve which is self aligning.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz et al in view of Makino et al, as applied to claim 1 above, and further in view of Boutet (FR 2639066). Boutet discloses a pump having means for washing the interior of the housing to remove particles (see abstract) which increases the longevity of the pump. In view of this teaching, it would have been obvious to provide the pump of Sanz et al, as previously modified, with means for washing the interior of the housing.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz et al in view of Makino et al and Woodworth et al, as applied to claim 13 above, and further in view of Boutet, as applied previously.

Claims 16/1 and 16/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz et al in view of Makino et al, as applied to claim 1 above, and further in view of Gerber. Gerber discloses a pump having a rotary valve which is actuated by a rotary solenoid (col. 6, l. 6). A rotary solenoid obviates the need for complex mechanical drive connections with the rotary valve. In view of this teaching, it would have been obvious to substitute a rotary solenoid for the mechanical drive for driving the valve of Sanz et al.

Claim 16/14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz et al in view of Makino et al and Boutet, as applied to claim 14 above, and further in view of Gerber, as applied previously.

Claim 16/15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanz et al in view of Makino et al, Woodworth et al and Boutet, as applied to claim 15 above, and further in view of Gerber, as applied previously.

Conclusion

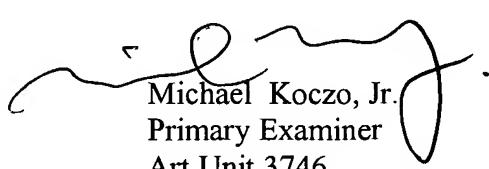
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry relating to patent applications in general should be directed to the Patent Assistance Center at 1-800-786-9199.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Koczo, Jr. whose telephone number is 571-272-4830. The examiner can normally be reached on M-Th; 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached at 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Koczo, Jr.
Primary Examiner
Art Unit 3746